# THE VEGETATION OF NEW ENGLAND, NEW SOUTH WALES.

BY FRED. TURNER, F.L.S., F.R.H.S., ETC.

#### INTRODUCTION.

Between the parallels 29° and 31° South and the meridians 151° 20′ and 152° 20′ East lies that portion of New South Wales called New England. Its exact geographical limits have, at one time and another, been the cause of considerable controversy, but as far as this paper is concerned it comprises that portion of the State which extends northwards along the Dividing Range from a little south of Armidale to the Queensland border. It is about 140 miles long by about 60 broad, and has an area of about 5,376,000 acres. The configuration of this area consists of a series of plateaux and a considerable extent of both steeply and gently undulating country. There are also many rugged hills and deep gorges. It rises from an altitude of 3,265 feet at Armidale to 5,000 at Ben Lomond, falling again to 2,831 feet at Tenterfield. The average elevation is about 3,500 feet. Although this portion of New South Wales is only about 80 or 90 miles distant in a straight line from the South Pacific Ocean, still its comparatively high altitude makes it one of the coldest districts in Eastern Australia. The geological formation consists of granitic and metamorphic rocks, which may be said to form the backbone of the Dividing Range. In some places extensive areas of these rocks are covered with trap and basalt, which have resulted from great volcanic disturbances at some period of the earth's history. Excepting on the bare, granitic hills, the soil varies in different localities. About one-third is

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composed of deep, rich, red soil which has been formed by the disintegration of the basaltic rocks. A large area of the flat country is composed of a stiff, retentive black soil which appears in the form of a deposit, and has most probably been washed down from the surrounding high lands. There is also a large area composed of light, friable loam which is the result of wash from the granitic hills. Over a great part of New England the land is rich and produces excellent cereals and other agricultural crops suitable to temperate climates.

#### CLIMATE.

### Temperature at Armidale.

Mean temperature	 56·5° F
Mean summer temperature	 67·7°
Mean winter temperature	 44.4°
Highest temperature (shade)	 $105 \cdot 2^{\circ}$
Lowest temperature (shade)	 $13.9^{\circ}$

### Temperature at Tenterfield.

Mean temperature	 59·1° F
Mean summer temperature	 69.6°
Mean winter temperature	 47·2°
Highest temperature (shade)	 107·1°
Lowest temperature (shade)	 12.0°

These temperatures will give a good idea of the climate of New England. In the vicinity of Ben Lomond it will, of course, average a few degrees lower on account of the greater altitude.

#### RAINFALL.

The mean annual rainfall is 33·1 inches at Armidale, and 34·9 inches at Tenterfield, and may be considered a fairly good one.

#### WATER.

New England is fairly well watered by several perennial streams, which form tributaries both to the eastern and western

rivers. In many localities there are springs of good water, and on some of the low, flat lands water is easily obtained by sinking a few feet into the earth. At Guyra, which lies at an altitude of 4,330 feet, there is a very large lake which, in ordinary seasons, contains a good supply of excellent water which is as clear as crystal. The only thing that detracts from this fine sheet of water, from an æsthetic point of view, is the quantity of so-called rushes (Heleocharis sphacelata, R.Br.) which grow over a greater part of it.

#### VEGETATION.

Since 1890 I have made many botanical excursions to New England and have written special reports on the economic flora growing there, and several of these, together with figures of some of the useful plants, have been published by the Government of New South Wales for the information of pastoralists and others. From time to time I have exhibited before the Members of this Society many botanical specimens I have collected in that part of the State. The vegetation of New England is, in many respects, of an unique character and differs very materially from that growing between its eastern boundary and the sea and from that found outside its western limits. On the east the vegetation is of a purely subtropical nature, and in many places very dense and luxuriant. That growing on the plains to the west consists of trees and shrubs of a more dwarf habit and generally of less luxuriant foliage, except near the watercourses. The vegetation of New England may be described as intermediate between these two. The chief arboreal vegetation is the Eucalyptus, of which there are sixteen known species. These are found in varying proportions, and in certain places forests of these valuable trees occur. Several species yield timber of great economic value which is used locally for a variety of purposes. In addition to these there are several fine Myrtaceous trees and shrubs, including the beautiful flowering "bottle brush," Callistemon lanceolatus, DC., the graceful "tea" tree, Leptospermum flavescens, Sm., and the "lily pily," Eugenia smithii, Poir., which is always an interesting sight when in fruit. Under Violariece is the curious shrubby

violet, Hymenanthera dentata, R. Br., with small, frequently polygamous flowers, and berries of a deep purple colour. Cheiranthera linearis, A. Cunn., of the Pittosporece, is one of the most charming flowering species of that interesting order, and is well worth garden culture for the sake of its large blue flowers. There are three species of Vitis and one, Vitis hypoglauca, F.v.M., produces bunches of fair-sized fruit locally known as "native grapes," which make good preserves. Leguminosæ are represented by numerous species and are well distributed. On some of the slopes the shrubby-growing kinds of Oxylobium, Mirbelia, Gompholobium, Jacksonia, Daviesia, Pultenæa, &c., display a wealth of bloom during the early summer months. Amongst the most beautiful flowering members of this family is Swainsona galegifolia, R.Br., but it is a suspected poison plant. Fifteen species are included under the genus Acacia, several of which attain large proportions, and certain of them furnish timber for industrial purposes and bark for tanning. Many exotic Leguminous plants, both perennial and annual, have become acclimatised and are now apparently wild. The "white clover," Trifolium repens, Linn., is very common and when in bloom gives quite an European appearance to many of the pastures. Two very interesting flowering plants, Callicoma serratifolia, Andr., and Bauera rubioides, Andr., are found in many moist places, and chiefly by the side of watercourses. Lythrum salicaria, Linn., grows taller and is more floriferous than I have seen it in any other part of Australia. Darwin gives some very interesting particulars regarding the fertilisation of this widely-distributed plant. Several species of Passiftora are found in Australia, but only one, Passiftora herbertiana, Lindl., occurs in New England, and although its flowers are not so showy as the tropical American kinds, still the plant is interesting to the botanist. The flannel flower, or Australian "edelweiss," Actinotus helianthi, Labill., is fairly abundant in many places, particularly on the hill sides. Three native mistletoes are widely distributed and grow on various species of trees and shrubs. Loranthus pendulus, Sieb., is the most common of the three.

Compositæ are a conspicuous feature, and in spring time a large area of both the flat and hilly country is studded with the showy flowers of many species which have a charming effect. Olearia, Brachycome and Helichrysum are more largely represented by species than any other three genera of this order. Many exotic species, some of an undesirable character, of this family have established themselves almost all over this area. Several species of Stylidium and Goodenia form a fair percentage of the vegetation in some districts, and are interesting when in bloom. The fertilisation of these plants would repay special study. Growing on some of the granite hills, and particularly in the fissures of the rocks, is a beautiful white-flowering variety of Isotoma axillaris, Lindl. Of Epacridea there are eight genera and fourteen species. The pretty flowering species of Leucopogon are fairly plentiful in places, and so are the two species of Epacris enumerated in this paper. Climbing plants are not abundant, but occasionally one meets with representatives of the following genera:—Clematis, Vitis, Passiflora, Rhipogonum, Parsonsia, Marsdenia and Tecoma. Several species of Solanum occur here and there and are suspected poison plants. Two allied introduced plants, Datura stramonium, Linn., and D. tatula, Linn., which usually grow about waste places, are regarded by pastoralists as stock-poisoners. Included under Scrophularinea are several interesting flowering plants, especially those of the genera Veronica and Euphrasia. Labiate are frequently met with, especially species of Prostanthera, and one of the native "mints" occasionally makes its presence known by the pleasant perfume its leaves and stems emit when trod upon. Polygonaceæ are well represented, and several species are widely diffused. genera of Proteaceæ are conspicuous in many places, but singular to say, of the forty-three species of Grevillea recorded for New South Wales I have found only one in New England. Of the six species of Pimelea recorded in this paper some are regarded with suspicion by stockowners. Wikstramia indica, C. A. Mey., a closely allied plant, is a most ornamental shrub when in fruit. Its red drupes make it a conspicuous object amongst the surrounding vegetation. It has long had, however, an unenviable reputation as a poisonous plant. Euphorbiaceæ comprise a larger proportion of the indigenous flora of this region than one would expect to find in such a climate. Most species that I collected, however, were growing in comparatively sheltered situations. The genera Euphorbia and Phyllanthus are more largely represented by species than any other two genera of this order. That most interesting, closely allied, diecious plant, Adriana accrifolia, Hook., is fairly plentiful in some of the sheltered ravines. A few species of Ficus, Casuarina and Frenela are scattered over this region.

Amongst the Monocotyledonece the genera Dendrobium, Diuris, Prasophyllum, Pterostylis and Caladenia of the Orchidea are well represented, particularly the terrestrial species. Although none of the flowers of these species can compare with those indigenous to India and South America, and which are so popular with horticulturists in Australia, Europe and North America, still they are of great interest to the botanist. Under Liliaceae are arranged many genera, and several beautiful flowering species are found both on the mountains and in the valleys. A few species of Smilax, Rhipogonum and Geitonoplesium are stout climbing plants, but by far the greater number are dwarf in habit. some of the moist places the large flowering "Christmas Bells," Blandfordia flammea, Hook., occur in greater or less abundance. And one of the so-called "fringed violets," Thysanotus tuberosus, R.Br., is found generally on the higher and drier areas. Several species of Xerotes and the allied Juncus are scattered over this area, the former usually growing on the higher land and sometimes on the stony hill sides, and the latter generally in wet places and by the side of streams. I have found only one palm, Kentia monostachya, F.v.M., in New England, and this occurs in the eastern portion. Cyperaceae are fairly numerous almost all over this region, the genera Cyperus, Fimbristylis, Scirpus, Cladium and Carex being well represented by species. Graminaceous plants which are particularly abundant, are of a rich and varied character, and have a high reputation for fattening stock. Panicum, Andropogon, Deyeuxia, Danthonia and Eragrostis are more largely represented by species than an equal number of genera of this order. There are thirty-nine genera and seventy-four species of grasses indigenous to New England. Of this number I have figured and described, as to their economic value, forty-nine under the authority of the Government of New South Wales. Several exotic species have become acclimatised and are to be seen growing in varying proportions on most of the grazing areas.

Acotyledonea are well represented in New England, more particularly in the eastern portion. In many of the shady ravines and in thickly timbered districts the stately arborescent ferns grow to perfection, whilst the more dwarf species carpet the ground with their beautiful fronds. Some species, as Aspidium ramosum, Palis., and Polypodium scandens, Forst., creep up the stems of trees and completely envelop the trunks with their graceful fronds, and others, such as Polypodium serpens, Forst., and Polypodium australe, Mett., may often be seen covering rocks with their curious growth. Four species of filmy ferns of the genera Trichomanes and Hymenophyllum grow fairly plentifully in the deep and shady gullies, usually near running streams. And in similar situations may be found the curious "club moss," sometimes called "notch fern," Tmesipteris tannensis, Bernh. Several epiphytal ferns occur here and there, and there is a robust growing form of Platycerium alcicorne, Desv. The genera most largely represented by species are Pteris, Aspidium, Asplenium and Polypodium.

This Census of the vegetation of New England includes many plants not hitherto recorded from that portion of New South Wales, and there is little doubt that when many of the deep and sheltered gorges and other places that are difficult of access are botanically explored more species will be recorded, and probably others that are new to science will be found. In the following pages are included all the known *Phanerogamia* and the vascular but not cellular *Cryptogamia*. There is an excellent and an almost unexplored field for the cryptogamic botanist in New England. The *Musci* and *Fungi* are numerous, and the *Lichens* 

include such genera as Collema, Cladonia, Usnea, Parmelia, Physcia, Lecidea, &c.

As this is the first census of the vegetation of New England, I hope it will be found useful to Australian botanists and botanical students, and that it will stimulate others to attempt similar productions in different portions of this Continent where the indigenous vegetation shows a character distinct from that of the surrounding districts. So far back as 1891 I suggested to the Government of New South Wales the advisability of mapping out the State into sections and publishing the indigenous and acclimatised flora of each section for general information. I instanced what the Rev. Dr. W. Woolls, F.L.S., had done with regard to the Parramatta and Sydney floras, and pointed out their value to botanists and botanical students.

All the indigenous plants included in this census that I did not know at sight I have worked out by the diagnosis given in Bentham's 'Flora Australiensis,' and I have followed the same classification and nomenclature as have been adopted in that incomparable work.

The plants marked with an asterisk are exotic, but many of them have become thoroughly acclimatised in New England.

The plants marked with a dagger have been figured and described, as to their economic value, by me.

The localities of the rarer species are given in the accompanying census.

Several persons have, at one time and another, botanised in New England, but those who appear to have made the largest collections of plants prior to 1890 were Mr. C. Stuart and Dr. H. Beckler.

My thanks are due to a number of pastoralists, especially the late Mr. W. H. Walker, of Tenterfield Station, and settlers in New England for forwarding me botanical specimens for identification during the last fifteen years.

An exceptionally busy life has hitherto prevented me from doing full justice to my collections and memoranda, but, as time permits, I purpose publishing accounts of my botanical excur-

sions in Queensland, New South Wales, Victoria, South Australia, West Australia and Tasmania during the last thirty years. I might add that I have often been urged to do this by those who, in this country and Europe, take a great interest in the Australian flora.

The accompanying table shows the percentage of the indigenous Phanerogamia and the Vascular Cryptogamia of New England compared with the similar flora of New South Wales.

New South Wales.  Dicotyledoneæ.  Genera 662  Species 2393	New England.  Dicotyledoneæ.  Genera 234  Species 418	Per Centage.  Genera 35·34 Species 17·46
Monocotyledoneæ. Genera 212 Species 668	Monocotyledoneæ. Genera 109 Species 231	Genera 51·41 Species 34·58
Acotyledoneæ. Genera 40 Species 145	Acotyledoneæ. Genera 26 Species . 59	Genera 65.00 Species 40.68
Total Genera 914 Total Species 3206	Total Genera 369 Total Species 708	Genera 40·37 Species 22·08

# Class I. DICOTYLEDONS, Ray.

Subclass I. POLYPETALÆ.

Series I. THALAMIFLORÆ.

RANUNCULACEÆ, B. de Juss.

Clematis microphylla, DC. Loc.—Mole River.

Ranunculus lappaceus, Sm.

rivularis, Bks. et Sol.

DILLENIACEÆ, Salis.

Hibbertia stricta, R.Br. var. hirtiflora. acicularis, F.v.M. Nine Mile.

linearis, R.Br.

Papaveraceæ, Juss.

Argemone mexicana, Linn.†\*

#### CRUCIFERÆ, B. de Juss.

Nasturtium officinale, R.Br.\*

Arabis glabra, Crantz. Black Mountain.

Cardamine dictyosperma, Hook.

laciniata, F.v.M.

Blennodia trisecta, Benth.† Sandy Flat.

Capsella bursa-pastoris, Mench.†\*

Lepidium ruderale, Linn.

sativum, Linn.\*

Raphanus raphanistrum, Linn.\*

Sinapis arvensis, Linn.\*

nigra, Boiss.\*

Sisymbrium officinale, Scop.\*

Senebiera didyma, Pers.\*

### Fumariaceæ, De Cand.

Fumaria officinalis, Linn.\*
parvittora, Lam.\*

### VIOLARIEÆ, De Cand.

Viola betonicæfolia, Sm.

Ionidium filiforme, F.v.M. Oban.

Hymenanthera dentata, R.Br. Armidale Gully.

# PITTOSPOREÆ, R.Br.

Bursaria spinosa, Cav.

Billardiera scandens, Sm. Melrose.

Cheiranthera linearis, A. Cunn. Dumaresq.

# Polygaleæ, Juss.

Polygala japonica, Houtt.

Comesperma retusum, Labill.

# CARYOPHYLLEÆ, Juss.

Silene gallica, Linn.\*

Cerastium vulgatum, Linn.\*

Stellaria pungens, Brong.

glauca, With.

media, Linn.\*

Spergularia rubra, Pers.

#### CARYOPHYLLEÆ.

Polycarpon tetraphyllum, Linn.

Lychnis githago, Lam.\*

Spergula arvensis, Linn.\*

Dianthus prolifer, Linn.\*

Portulaceæ, Juss.

Portulaca oleracea, Linn.†

HYPERICINEÆ, St. Hil.

Hypericum japonicum, Thunb

MALVACEÆ, Juss.

Malvastrum spicatum, A. Gray.†

Hibiscus sturtii, Hook. N. of Tenterfield.

Malva rotundifolia, Linn.\*

parviflora, Linn.\*

sylvestris, Linn.\*

verticillata, Linn.\*

STERCULIACEÆ, Vent.

Sterculia diversifolia, G. Don.† Beaufort.

Rulingia pannosa, R.Br.

rugosa, Steetz.

## Series II. DISCIFLOR E.

LINEÆ, De Cand.

Linum marginale, A. Cunn.

gallicum, Linn.\*

GERANIACEÆ, Juss.

Geranium dissectum, Linn.†

Erodium cygnorum, Nees.†

cicutarium, Willd.\*

moschatum, Willd.\* Kentucky.

Pelargonium australe, Willd.

Oxalis corniculata, Linn.

RUTACEÆ, Juss.

Boronia polygalifolia, Sm. Steinbrook.

Eriostemon myoporoides, DC. Bolivia.

Phebalium elatius, Benth.

Evodia micrococca, F.v.M. Bryan's Gap.

SIMARUBEÆ, De Cand.

Cadellia pentastylis, F.v.M.

CELASTRINEÆ, R.Br.

Celastrus australis, Harv. N.E. of Bolivia. cunninghamii, F.v.M.

STACKHOUSIEÆ, R.Br.

Stackhousia monogyna, Labill. viminea, Sm.

RHAMNEÆ, Juss.

Pomaderris lanigera, Sm. Wollomombi elliptica, Labill. phillyreoides, Sieb., var. nitidula.

Cryptandra amara, Sm.
lanosiflora, F.v.M.
propinqua, A. Cunn.

longistaminea, F.v.M. Near Bear Hill. Discaria australis, Hook.

Ampelideæ, Kunth.

Vitis antarctica, Benth.

clematidea, F.v.M. Red Range.
hypoglauca. F.v.M.

Sapindaceæ, Juss.

Nephelium subdentatum, F.v.M. Kookabookra.

Dodonæa triquetra, Andr.

viscosa, Linn.

attenuata, A. Cunn., var. linearis.†

Series III. CALYCIFLORÆ.

LEGUMINOSÆ, Juss.

Suborder I. PAPILIONACEÆ.

Oxylobium trilobatum, Benth. N. of Tenterfield.

Mirbelia pungens, A. Cunn.

speciosa, Sieb.

#### PAPILIONACEÆ.

Gompholobium huegelii, Benth.

uncinatum, A. Cunn.

Jacksonia scoparia, R.Br.

Daviesia latifolia, R.Br. Bryan's Gap.

corymbosa, Sm.

ulicina, Sm.

genistifolia, A. Cunn.

Aotus mollis, Benth. Near Bald Nob.

Pultenæa pycnocephala, F.v.M.

paleacea, Willd.

microphylla, Sieb. Timbarra.

Dillwynia juniperina, Sieb.

Bossica prostrata, R.Br. Lode Hill.

Templetonia muelleri, Benth.

Hovea longifolia, R.Br. Shannon's Vale.

Lotus corniculatus, Linn.

australis, Andr.

Psoralea tenax, Lindl.

Indigofera australis, Willd.

Swainsona galegifolia, R. Br.†

brachycarpa, Benth.

procumbens, F.v.M.†

oroboides, F.v.M.† Near Mole River.

lessertiifolia, DC. Jump Up.

Zornia diphylla, Pers. Argenton.

Desmodium brachypodium, A. Gray.

varians, Endl.

Lespedeza cuneata, G. Don.

Glycine clandestina, Wendl.

tabacina, Benth.

Vigna vexillata, Benth.

Medicago sativa, Linn.\*

denticulata, Willd.\*

minima, Willd.\*

lupulina, Linn.\*

Melilotus parviflora, Desf.\*

#### Papilionaceæ.

Trifolium pratense, Linn.\* repens, Linn.\* agrarium, Linn.\* procumbens, Linn.\* Vicia sativa, Linn.\*

villosa, Willd.\*

Ervum hirsutum, Linn.\* Ulex europæus, Linn.\*

### Suborder II. CÆSALPINIEÆ.

Cassia sophera, Linn., var. schinifolia. australis, Sims. eremophila, A. Cunn.† Sunnyside.

> Suborder III. MIMOSEÆ.

Acacia juniperina, Willd. armata, R.Br. vomeriformis, A. Cunn. Clive. stricta, Willd. neriifolia, A. Cunn. rubida, A. Cunn. decora. Reichb. Mole River. buxifolia, A. Cunn. venulosa, Benth. E. of Elsmore. pycnostachya, F.v.M. longifolia, Willd. pruinosa, A. Cunn. spectabilis, A. Cunn. Emmaville. polybotrya, Benth. decurrens, Willd. †

#### Rosaceæ, Juss.

Rubus parviflorus, Linn. rosæfolius, Sm. fruticosus, Linn.\* Accena ovina, A. Cunn.† sanguisorbæ, Vahl. 19

ROSACEÆ.

Rosa rubiginosa, Linn.\*
Poterium sanguisorba, Linn.\*

SAXIFRAGEÆ, Vent.

Callicoma serratifolia, Andr. Bauera rubioides, Andr.

CRASSULACEÆ, De Cand.

Tillea verticillaris, DC.

DROSERACEÆ, Salis.

Drosera spathulata, Labill.

HALORAGEÆ, R.Br.

Haloragis serra, Brongn.

alata, Jacq.

micrantha, R.Br. Salisbury Plains.

heterophylla, Brongn. tetragyna, Hook.

Myriophyllum verrucosum, Lindl.

MYRTACEÆ, Juss.

Micromyrtus minutiflora, Benth. Wollomombi.

Bæckea densifolia, Sm. Brockley.

Leptospermum flavescens, Sm.

attenuatum, Sm.

abnorme, F.v.M.

Callistemon lanceolatus, DC.

salignus, DC.

Melaleuca genistifolia, Sm.

Angophora intermedia, DC.

Eucalyptus stellulata, Sieb.

coriacea, A. Cunn.

amygdalina, Labill., var.

obliqua, L'Her.

macrorhyncha, F.v.M.

leucoxylon, F.v.M.

melliodora, A. Cunn.

albens, Miq.

crebra, F.v.M.

#### MYRTACEÆ.

Eucalyptus dealbata, A. Cunn.
viminalis, Labill.
rostrata, Schl.
tereticornis, Sm.
stuartiana, F.v.M.
regnans, F.v.M.
eugenioides, Sieb.

Eugenia smithii, Poir.

### LYTHRARIEÆ, Juss.

Lythrum salicaria, Linn.

### Onagrarieæ, Juss.

Epilobium junceum, Forst. billardierianum, Ser. Jussiæa suffruticosa, Linn. Enothera biennis, Linn.\*

### Passifloreæ, Juss.

Passiflora herbertiana, Lindl. Steinbrook.

# FICOIDEÆ, Dill.

Tetragonia expansa, Murr.†

# UMBELLIFERÆ, Juss.

Hydrocotyle hirta, R.Br.

laxiflora, DC.

Trachymene australis, Benth.

incisa, Rudge.

Siebera linearifolia, Benth.

Actinotus helianthi, Labill.

minor, DC.

Eryngium vesiculosum, Labill. Wellingrove.

Apium australe, Thou.

Daucus brachiatus, Sieb.†

Anethum fæniculum, Willd.\*

Conium maculatum, Linn.\* Guyra.

## ARALIACEÆ, Vent.

Astrotriche floccosa, DC. Steinbrook.

#### Subclass II. MONOPETALÆ.

LORANTHACEÆ, Juss.

Loranthus longiflorus, Desv. linophyllus, Fenzl. pendulus, Sieb.

RUBIACEÆ, Juss.

Opercularia hispida, Spreng.

Pomax umbellata, Soland.

Asperula scoparia, Hook.

conferta, Hook., var. elongata.

Galium gaudichaudi, DC.

aparine, Linn.

Compositæ, Vaill.

Leuzea australis, Gaud.

Centaurea melitensis, Linn.\*

solstitialis, Linn.†\*

calcitrapa, Linn.†\*

Vernonia cinerea, Less. Steinbrook. Olearia rosmarinifolia, A. Cunn.

stellulata, Labill., var. canescens. gravis, F.v.M. Shannon's Vale. ramulosa, Benth., var. communis. ramosissima, Benth. ellintica, DC.

Vittadinia australis, A. Rich., var. dissecta.

Erigeron canadensis, Linn.\* linifolius, Willd.\*

Calotis dentex, R.Br. cuneifolia, R.Br. lappulacea, Benth.

Lagenophora solenogyne, F.v.M. emphysopus, Hook.

Brachycome microcarpa, F.v.M.
stuartii, Benth. Bryan's Gap.
scapiformis, DC.
discolor, C. Stuart.

#### COMPOSITÆ.

Brachycome multifida, DC.

Xanthium spinosum, Linn.\*

Siegesbeckia orientalis, Linn.

Wedelia biflora, DC.

Spilanthes grandiflora, Turcz. Melrose.

Galinsoga parviflora, Cav.†\*

Glossogyne tenuifolia, Cass.

Cotula australis, Hook.

Soliva anthemifolia, R.Br.

Myriogyne minuta, Less. Mole River.

Calocephalus citreus, Less. Mole River.

Craspedia richea, Cass. Ben Lomond. chrysantha, Benth.

Ammobium alatum, R.Br.

Cassinia laevis, R.Br.

quinquefaria, R.Br. Dumaresq.

Ixiolæna brevicompta, F.v.M.

Podolepis acuminata, R.Br.

Leptorhynchus squamatus, Less.

Helichrysum bracteatum, Willd.

elatum, A. Cunn.

collinum, DC. Black Mountain.

apiculatum, DC.

semipapposum, DC.

diosmifolium, Less.

ferrugineum, Less.

obcordatum, F.v.M.

Helipterum anthemoides, DC.

incanum, DC.

dimorpholepis, Benth.

Gnaphalium luteo-album, Linn.

japonicum, Thunb. collinum, Labill.

Erechthites arguta, DC.

Erechthites arguta, DC

Senecio lautus, Forst.

#### COMPOSITÆ.

Senecio australis, Willd.

vulgaris, Linn.\*

Cymbonotus lawsonianus, Gaud.

Microseris forsteri, Hook.

Hypochæris glabra, Linn.\*

radiata, Linn.\*

Picris hieracioides, Linn.\*

Sonchus oleraceus, Linn.

Carduus marianus, Linn.\*

Cirsium lanceolatum, Scop.\*

arvense, Scop.\*

Anthemis cotula, Linn.\*

Chrysanthemum segetum, Linn.\*

Tragopogon porrifolius, Linn.\*

Onopordon acanthium, Linn.\*

Cryptostemma calendulaceum, R.Br. †\*

Cichorium intybus, Linn.\*

Taraxacum officinale, Linn.\*

## STYLIDIEÆ, R.Br.

Stylidium graminifolium, Swartz.

debile, F.v.M.

laricifolium, Rich.

eglandulosum, F.v.M. Melrose.

# GOODENOVIE.E, R.Br.

Velleia paradoxa, R.Br. Kelly's Plains.

Goodenia bellidifolia, Sm.

lanata, R.Br.

hederacea, Sm.

rotundifolia, R.Br.

pinnatifida, Schl.

heteromera, F.v.M. Kelly's Plains.

Scævola spinescens, R.Br.

microcarpa, Cav.

Dampiera brownii, F.v.M.

### CAMPANULACEÆ, Juss.

Lobelia gibbosa, Labill.

trigonocaulis, F.v.M.

purpurascens, R.Br.

Isotoma axillaris, Lindl., et var. alba.

Wahlenbergia gracilis, DC.

### EPACRIDEÆ, R.Br.

Styphelia viridis, Andr.

Melichrus rotatus, R.Br.

urceolatus, R.Br.

Trochocarpa laurina, R.Br. Near Mount Mitchell.

Brachyloma daphnoides, Benth.

Leucopogon lanceolatus, R.Br.

hookeri, Sond.

melaleucoides, A. Cunn.

confertus, Benth.

neo-anglicus, F.v.M.

Acrotriche aggregata, R.Br. Red Range.

Monotoca scoparia, R.Br.

Epacris longiflora, Cav.

obtusifolia, Sm.

## Plumbagineæ, R.Br.

Plumbago zeylanica, Linn. Sunnyside.

# PRIMULACEÆ, Vent.

Lysimachia salicifolia, F.v.M.

japonica, Thunb. Black Mountain.

Samolus valerandi, Linn. Rocky River.

Anagallis arvensis, Linn.\*

# Myrsineæ, R.Br.

Myrsine crassifolia, R.Br. variabilis, R.Br.

# Jasmineæ, Juss.

Jasminum suavissimum, Lindl. Steinbrook.

Noteleea microcarpa, R.Br.

linearis, Benth.

APOCYNEE, Juss.

Parsonsia lanceolata, R.Br. ventricosa, F.v.M. E. of Stannifer.

ASCLEPIADEÆ, R.Br.

Sarcostemma australe, R.Br.† Sunnyside.

Marsdenia flavescens, A. Cunn. Red Range.

Gomphocarpus fruticosus, R.Br.\*

LOGANIACE.E, R.Br.

Mitrasacme indica, Wight. Logania floribunda, R.Br.

GENTIANEE, Juss.

Erythræa australis, R.Br.† Limnanthemum geminatum, Griseb.

BORAGINEÆ, Juss.

Halgania preissiana, Lehm. Melrose.

Cynoglossum latifolium, Linn. Torrington.

Echium violaceum, Linn.\*

Lithospermum arvense, Linn.\*

Convolvulaceæ, Juss.

Convolvulus erubescens, Sims.

marginatus, Spreng.

Evolvulus alsinoides, Linn.

Cuscuta australis, R.Br.

epithymum, Willd.\*

Solaneæ, Juss.

Solanum nigrum, Linn.†

stelligerum, Sm.

amblymerum, Dun.

densevestitum, F.v.M.

semiarmatum, F.v.M.

campanulatum, R.Br. Bonshaw.

Physalis minima, Linn.

Datura leichhardtii, F.v.M. Sunnyside.

stramonium, Linn.†\*

tatula, Linn.\*

SCROPHULARINEÆ, Mirb.

Mimulus gracilis, R.Br.

Gratiola pedunculata, R.Br.

Veronica derwentia, Andr. Black Swamp.

plebeia, R.Br.

serpillifolia, Linn. Ben Lomond.

Euphrasia collina, R.Br. Lode Hill.

scabra, R.Br.

arguta, R.Br.

Celsia cretica, Linn.\*

Verbascum blattaria, Linn.\*

virgatum, Linn.\*

thapsus, Linn.\* Bolivia.

Linaria elatine, Mill.\*

LENTIBULARIEÆ, Rich.

Utricularia dichotoma, Labill. Shannon's Vale.

BIGNONIACEÆ, R.Br.

Tecoma australis, R.Br.

ACANTHACEÆ, R.Br.

Eranthemum variable, R.Br.

Myoporineæ, R.Br.

Myoporum acuminatum, R.Br.

deserti, A. Cunn.† E. of Elsmore.

VERBENACEÆ, Juss.

Verbena officinalis, Linn.

bonariensis, Linn.\*

Spartothamnus junceus, A. Cunn.

Labiatæ, Juss.

Plectranthus parviflorus, Willd.

Mentha satureioides, R.Br.

Lycopus australis, R.Br.

Salvia plebeia, R.Br.

Prunella vulgaris, Linn.

Scutellaria humilis, R.Br.

 $Prostanthera\ lasianthos,\ Labill.$ 

#### LABIATÆ.

Prostanthera cærulea, R.Br. Timbarra.

ovalifolia, R.Br.

phylicifolia, F.v. M.

nivea, A. Cunn. Shannon's Vale.

saxicola, R.Br., var. major.

Westringia glabra, R.Br. Kookabookra.

Teucrium corymbosum, R.Br.

argutum, R.Br.

Ajuga australis, R.Br.

Marrubium vulgare, Linn.\*

Stachys arvensis, Linn. †\*

Molucella lævis, Linn.\*

### PLANTAGINEÆ, Juss.

Plantago debilis, R.Br.

varia, R.Br.†

lanceolata, Linn.\*

major, Linn.\*

### Subclass III. MONOCHLAMYDEÆ.

PHYTOLACCACEE, Endl.

Phytolacca octandra, Linn.\*

CHENOPODIACEÆ, Meisn.

Rhagodia hastata, R.Br.† E. of Elsmore.

linifolia, R.Br.

Chenopodium album, Linn.\*

triangulare, R.Br.

glaucum, Linn.\*

ambrosioides, Linn.\*

murale, Linn.\*

Atriplex patula, Linn.\*

hortensis, Linn.\*

## Amarantace.e, Juss.

Deeringia celosioides, R.Br. Deepwater.

Amarantus viridis, Linn.

paniculatus, Linn.\*

blitum, Linn.\*

#### AMARANTACEÆ.

Trichinium alopecuroideum, Lindl.
macrocephalum, R.Br. Swan Vale.
Nyssanthes erecta, R.Br.
Alternanthera nodiflora, R.Br.
nana, R.Br.

PARONYCHIACEÆ, Meisn.

Scleranthus biflorus, Hook.

# Polygonaceæ, Juss.

Emex australis, Steinh.†\*
Rumex crispus, Linn.\*
conglomeratus, Murr.\*
acetosella, Linn.\*

Polygonum strigosum, R.Br.
prostratum, R.Br.
minus, Huds.
subsessile, R.Br.
lapathifolium, Linn.
aviculare, Linn.\*

Muhlenbeckia gracillima, Meisn.
rhyticarya, F.v.M.
cunninghamii, F.v.M. Near the Severn River.

# NYCTAGINEÆ, Juss.

Boerhaavia diffusa, Linn.†

# Monimiaceæ, Juss.

Kibara macrophylla, Benth.

Hedycarya angustifolia, A. Cunn. Steinbrook.

# LAURINEÆ, Vent.

Cryptocarya glaucescens, R.Br. Cassytha pubescens, R.Br.

# PROTEACEÆ, Juss.

Petrophila sessilis, Sieb. Beaufort. Isopogon petiolaris, A. Cunn. Conospermum taxifolium, Sm.

#### PROTEACE.E.

Persoonia cornifolia, A. Cunn.

sericea, A. Cunn.

mitchellii, Meisn.

prostrata, R.Br.

lanceolata, Andr.

tenuifolia, R.Br.

Grevillea trinervis, R.Br. N.E. of Guyra.

Hakea eriantha, R.Br. Swan Vale.

saligna, Knight.

leucoptera, R.Br.† E. of Stannifer.

microcarpa, R.Br.

dactyloides, Cav.

Lomatia ilicifolia, R.Br.

silaifolia, R.Br.

Banksia collina, R.Br. Lode Hill.

integrifolia, Linn.

### THYMELEÆ, Juss.

Pimelea glauca, R.Br.

collina, R.Br. Ben Lomond.

linifolia, Sm.

pauciflora, R.Br.

curviflora, R.Br., var sericea.

altior, F.v.M. Newton Boyd.

Wikstræmia indica, C. A. Mey. Bryan's Gap.

## EUPHORBIACEÆ, Juss.

Euphorbia drummondii, Boiss.

macgillivrayi, Boiss.

eremophila, A. Cunn.

peplus, Linn.\*

helioscopia, Willd.\*

Poranthera microphylla, Brong.

Beyeria viscosa, Miq. Mole River.

lasiocarpa, F.v.M.

Bertya cunninghami, Planch.

rosmarinifolia, Planch.

#### EUPHORBIACEÆ.

Amperea spartioides, Brong.

Phyllanthus ferdinandi, Muell., var. minor.

gasstræmii, Muell.

subcrenulatus, F.v.M.

thymoides, Sieb. Hillgrove.

filicaulis, Benth.

Breynia oblongifolia, Muell. N.E. of Tenterfield.

Claoxylon australe, Baill.

Acalypha nemorum, F.v.M. E. of Bolivia.

Adriana acerifolia, Hook.

Carumbium stillingiæfolium, Baill. Steinbrook.

### URTICEÆ, Vent.

Trema aspera, Blume.

Ficus rubiginosa, Desf.

aspera, Forst.

opposita, Miq.

Pseudomorus brunoniana, Bureau. Near source of the Apsley River.

Elatostemma reticulatum, Wedd.

Parietaria debilis, Forst.

Urtica urens, Linn.\*

dioica, Linn.\*

## CASUARINEÆ, Mirb.

Casuarina glauca, Sieb.† Swan Vale. suberosa, Ott. et Dietr.

# PIPERACEÆ, Rich.

Peperomia leptostachya, Hook. et Arn. Drake. reflexa, A. Dietr.

# SANTALACEÆ, R.Br.

Thesium australe, R.Br.

Santalum lanceolatum, R.Br., var. angustifolium. E. of Elsmore.

Choretrum lateriflorum, R.Br. candollei, F.y.M. Mole River.

#### SANTALACEÆ.

Exocarpus cupressiformis, Labill. stricta, R.Br.

#### Subclass IV. GYMNOSPERMÆ.

#### Coniferæ, Juss.

Frenela robusta, A. Cunn. rhomboidea, Endl.

### CYCADEÆ, Rich.

Macrozamia paulo-gulielmi, F.v.M.

### Class II. MONOCOTYLEDONS, Ray.

#### Hydrocharideæ, Lam.

Vallisneria spiralis, Linn.

### ORCHIDEÆ, R.Br.

Liparis reflexa, Lindl.

Dendrobium æmulum, R.Br.

kingianum, Bidw. E. of Dundee.

pugioniforme, A. Cunn.

linguiforme, Swartz.

teretifolium, R.Br. Guy Fawkes River.

mortii, F.v.M. Black Swamp.

Bulbophyllum elisæ, F v.M.

Cleisostoma tridentatum, Lindl. Near Bryan's Gap.

Dipodium punctatum, R.Br.

Galeola cassythoides, Reichb. N.E. of Tenterfield.

Spiranthes australis, Lindl. Ranger's Valley.

Thelymitra ixioides, Sw.

longifolia, Forst.

Diuris alba, R.Br. Salisbury Plains.

punctata, Sm.

aurea, Sm. Graham's Valley.

maculata, Sm.

pallens, Benth. Ranger's Valley.

abbreviata, F.v.M.

sulphurea, R.Br. Graham's Valley.

#### ORCHIDEÆ.

Prasophyllum flavum, R.Br.

patens, R.Br.

fuscum, R.Br. Graham's Valley.

Microtis porrifolia, Spreng.

parviflora, R.Br. Salisbury Plains.

Pterostylis reflexa, R.Br.

obtusa, R.Br.

mutica, R.Br.

rufa, R.Br. Ranger's Valley.

Caleana major, R.Br. Mole River. minor, R.Br. Mole River.

Acianthus exsertus, R.Br.

Eriochilus autumnalis, R.Br.

Caladenia patersoni, R.Br.

suaveolens, Reichb.

carnea, R.Br.

cærulea, R.Br. Mole River.

Glossodia major, R.Br.

minor, R.Br. Mole River.

Burmanniaceæ, Blume.

Burmannia disticha, Linn.

IRIDEÆ, R.Br.

Patersonia glauca, R.Br.

sericea, R.Br.

glabrata, R.Br.

Sisyrinchium micranthum, Cav.\*

Libertia paniculata, Spreng. Near Black Swamp.

AMARYLLIDEÆ, St. Hil.

Hæmodorum planifolium, R.Br.

Hypoxis hygrometrica, Labill.

glabella, R.Br.

Dioscorideæ, Meisn.

Dioscorea transversa, R.Br. N.E. of Bolivia.

LILIACEÆ, De Cand.

Smilax glycyphylla, Sm.

#### LILIACEÆ.

Smilax australis, R.Br.

Rhipogonum album, R.Br.

discolor, F.v.M.

elseyanum, F.v.M.

Dianella lævis, R.Br.

cærulea, Sims.

Geitonoplesium cymosum, A. Cunn. N.E. of Bolivia.

Blandfordia flammea, Hook.

Anguillaria dioica, R.Br.

Bulbine bulbosa, Haw. E. of Stannifer.

semibarbata, Haw.

Thysanotus tuberosus, R.Br.

Casia vittata, R.Br.

parviflora, R.Br.

Tricoryne elatior, R.Br. Clive.

Stypandra glauca, R.Br.

cæspitosa, R.Br.

Arthropodium paniculatum, R.Br.

minus, R.Br.

Dichopogon sieberianus, Kunth. E. of Bolivia.

Laxmannia gracilis, F.v.M.

Allium fragrans, Vent.\*

## PHILYDRACEÆ, R.Br.

Philydrum lanuginosum, Banks.

XYRIDEÆ, Kunth.

Xyris gracilis, R.Br. Graham's Valley. operculata, Labill.

COMMELYNACEÆ, Endl.

Aneilema acuminatum, R.Br.

biflorum, R.Br.

gramineum, R.Br. Sandy Flat.

Pollia crispata, Benth. N.E. of Hillgrove.

JUNCACEE, Agardh.

Xerotes longifolia, R.Br.

#### Juncaceæ.

Nerotes multiflora, R.Br.
filiformis, R.Br.
elongata, Benth.
leucocephala, R.Br.

Luzula campestris, DC. Ben Lomond.
Juncus planifolius, R.Br.
homalocaulis, F.v.M.
communis, E. Mey.
pauciflorus, R.Br.
prismatocarpus, R.Br.
capillaceus, Hook.



# Palmæ, Juss.

Kentia monostachya, F.v.M. N.E. of Tenterfield.

### Aroideæ, Juss.

Typhonium brownii, Schott. Gymnostachys anceps, R.Br.

### TYPHACEE, De Cand.

Typha angustifolia, Linn. Sparganium angustifolium, R.Br.

# LEMNACEÆ, De Cand.

Lemna trisulca, Linn. minor, Linn. Yarrowyek.

# NAIADEÆ, Agardh.

Triglochin procera, R.Br.

Potamogeton natans, Linn.

obtusifolius, Mert. et Koch.

# CENTROLEPIDEÆ, Desv.

 $Centrolepis\ fascicularis,\ {\bf Labill.}$ 

# Restiaceæ, R.Br.

Lepyrodia scariosa, R.Br. Restio gracilis, R.Br. tetraphyllus, Labill. Hypolena lateriflora, Benth

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CYPERACEÆ, R.Br.

Kyllinga intermedia, R.Br.

Cyperus eragrostis, Vahl. Rocky River.

polystachyus, Rottb.

enervis, R.Br.

difformis, Linn.

tetraphyllus, R.Br.

trinervis, R.Br.

concinnus, R.Br. Nine Mile.

filipes, Benth.

vaginatus, R.Br.

carinatus, R.Br.

rotundus, Linn.†

gunnii, Hook. Ben Lomond.

exaltatus, Retz.

Heleocharis sphacelata, R.Br.

cylindrostachys, Beeck.

acuta, R.Br.

atricha, R.Br. Mole River.

Fimbristylis nutans, Vahl.

monostachya, Hassk.

velata, R.Br.

æstivalis, Vahl.

diphylla, Vahl. Ranger's Valley.

cyperoides, R.Br.

Scirpus fluitans, Linn.

setacens, Linn.

inundatus, Spreng.

prolifer, Rotth.

lacustris, Linn.

Rhynchospora glauca, Vahl. Wellingrove.

Scheenus melanostachys, R.Br.

vaginatus, F.v.M.

Mesomelæna deusta, Benth.

sphærocephala, Benth.

#### CYPERACEÆ.

Lepidosperma exaltatum, R.Br. laterale, R.Br.

Cladium articulatum, R.Br.

glomeratum, R.Br.

tetraquetrum, Hook., and var. planifolium.

gunnii, Hook.

junceum, R.Br.

Gahnia melanocarpa, R.Br.

psittacorum, Labill., var. oxylepis.

Caustis flexuosa, R.Br. E. of Uralla. Carex inversa, R.Br.

paniculata, Linn.

gracilis, R.Br.

contracta, F.v.M.

vulgaris, Fries.

acuta, Linn.

lobolepis, F.v.M.

pseudo-cyperus, Linn. Walcha.

## GRAMINEÆ, R.Br.

Paspalum distichum, Linn.†

Eriochloa punctata, Hamilt.†

annulata, Kunth.+

Panicum sanguinale, Linn.†

parviflorum, R.Br.†

leucophæum, H.B. et K.†

semialatum, R.Br.

flavidum, Retz., † var. tenuior.

gracile, R.Br.†

colonum, Linn. E. of Tenterfield.

crus-galli, Linn.†

marginatum, R.Br., et var.

obseptum, Trin.

bicolor, R.Br.†

melananthum, F.v.M.†

#### GRAMINE.E.

Panicum effusum, R.Br.†

decompositum, R.Br.†

prolutum, F.v.M.†

Setaria glauca, Palis.†

viridis, Beauv.\*

Pennisetum compressum, R.Br.†

Cenchrus australis, R.Br.†

Lappago racemosa, Willd.

Hemarthria compressa, R.Br.†

Ischæmum laxum, R.Br.† Kentucky.

Arthraxon ciliare, Palis.† E. of Glen Innes.

Pollinia fulva, Benth.† W. of Glen Innes.

Andropogon sericeus, R.Br.†

affinis, R.Br.†

intermedius, R.Br.†

refractus, R.Br.†

Imperata arundinacea, Cyr.†

Chrysopogon parviflorus, Benth. W. of Glen Innes.

Sorghum plumosum, Beauv.†

Anthistiria ciliata, Linn.†

Arundinella nepalensis, Trin

Polypogon monspeliensis, Desf.\*

Microlæna stipoides, R.Br.†

Hierochloa rariflora, Hook. Ben Lomond.

Aristida vagans, Cav.

ramosa, R.Br.

Stipa setacea, R.Br.

pubescens, R.Br.

Dichelachne crinita, Hook.†

sciurea, Hook.†

Agrostis alba, Linn.

scabra, Willd.

Deyeuxia forsterii, Kunth.†

billardieri, Kunth.†

quadriseta, Benth.†

#### GRAMINEÆ.

Deveuxia scabra, Benth. breviglumis, Benth. W. of Glen Innes. Holcus lanatus, Linn.\* Amphibromus neesii, Steud.† Danthonia carphoides, F.v.M.† Armidale. pallida, R.Br.+ longifolia, R.Br. racemosa, R.Br. semiannularis, R.Br.+ Echinopogon ovatus, Beauv.† Pappophorum nigricans, R.Br.+ Cynodon dactylon, Pers.† Chloris truncata, R.Br.+ Leptochloa chinensis, Nees. Sporobolus indicus, R.Br.† Isachne australis, R.Br.† Phragmites communis, Trin. Kæleria phleoides, Pers.\* Dactylis glomerata, Linn.\* Eragrostis nigra, Nees. pilosa, Palis.† leptostachya, Steud.† diandra, Steud. brownii, Nees. Poa cæspitosa, Forst., et vars.† annua, Linn.\* glauca, E.B.\* pratensis, Willd.\* Glyceria fluitans, R.Br.† latispicea, F.v.M. Briza minor, Linn.\* maxima, Linn.\* Bromus mollis, Linn.\* sterilis, Linn.\*

Ceratochloa unioloides, DC.\*

#### GRAMINE.E.

Festuca duriuscula, Linn.

bromoides, Linn.\*

Agropyrum scabrum, Palis.†

Lolium perenne, Linn.\*

temulentum, Linn.\*

Hordeum murinum, Linn.\*

Phalaris canariensis, Linn.\*

Avena fatua, Linn.\*

### Class III. ACOTYLEDONS, Jussieu.

### Lycopodiaceæ, Swartz.

Lycopodium selago, Linn.

densum, Labill.

Selaginella uliginosa, Spring.

Azolla rubra, R.Br.

Tmesipteris tannensis, Bernh. N.E. of Glen Innes.

Psilotum triquetrum, Swartz. E. of Stonehenge.

### FILICES, Linn.

Schizeea bifida, Swartz.

Gleichenia dicarpa, R.Br.

flabellata, R.Br.

Todea barbara, T. Moore. Near source of the Mole River.

Trichomanes caudatum, Brackenr.

apiifolium, Presl.

Hymenophyllum flabellatum, Labill.

tunbridgense, Sm.

Alsophila australis, R.Br.

leichhardtiana, F.v.M.

Dicksonia antarctica, Labill.

youngiæ, C. Moore. E. of Tenterfield.

Davallia pyxidata, Cav.

dubia, R.Br.

Lindseea linearis, Swartz.

microphylla, Swartz. Armidale Gully.

Adiantum æthiopicum, Linn.

formosum, R.Br. E. of Tenterfield.

#### FILICES.

Adiantum hispidulum, Swartz.

Cheilanthes tenuifolia, Swartz.

Pteris geraniifolia, Raddi. Black Swamp.

paradoxa, Baker. N.E. of Glen Innes.

falcata, R.Br.

longifolia, Linn.

umbrosa, R.Br.

tremula, R.Br.

aquilina, Linn.

Lomaria patersoni, Spreng. capensis, Willd.

Blechnum cartilagineum, Swartz.

Doodia aspera, R.Br.

blechnoides, A. Cunn.

caudata, R.Br.

Asplenium flabellifolium, Cav. E. of Bolivia.

falcatum, Lam. N.E. of Bolivia.

flaccidum, Forst.

umbrosum, J. Sm.

Aspidium ramosum, Palis.

unitum, Swartz.

molle, Swartz.

aculeatum, Swartz.

aristatum, Swartz.

decompositum, Spreng.

Polypodium australe, Mett.

tenellum, Forst.

punctatum, Thunb.

serpens, Forst.

confluens, R.Br.

attenuatum, R.Br.

scandens, Forst.

Notholeena distans, R.Br. Bolivia.

Grammitis rutæfolia, R.Br. Melrose.

Platycerium alcicorne, Desv.